Theme   :   Social Justice
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Access and success of distance learners through ICTs at School of Distance Learning and Continuing Education (SDLCE), Kakatiya University

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Introduction

Open and Distance Learning (ODL) represents an approach that focuses opening access to education and training through ICTs. The benefits of ODL are freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals and groups of learners with the support of ICTs.

The conventional system of education in Warangal District of Andhra Pradesh has become inadequate to meet the growing demand for higher education due to its inbuilt constraints in admissions to the full-time courses on campus. In view of this, the Kakatiya University has established the School of Distance Learning and Continuing Education (SDLCE) in 1988 to meet this demand and to reduce the pressure on conventional system.

The aim of the SDLCE is to offer higher education programs through distance education mode, for the benefit of all those who had been deprived of the opportunity, for one reason or the other to enter the main stream education. The SDLCE follows the multi-mode system and provides printed course materials; technology based lessons to the learners and arranges limited face-to-face sessions through contact-cum-counseling sessions. The term technology based education/learning refers to systems of teaching and learning in which a technology other than the print has a major role (COL, 2000). This study focuses on ICTs delivery instructional system other than self-instructional materials that SDLCE is using.

Objectives of the Study

The objectives of the study are:
    (i) To examine the ICT facilities provided to the learners by the SDLCE, Kakatiya University;
    (ii) To study and analyze responses of learners to ICT instructional delivery system; and
    (iii) To evaluate the issues and concerns of learners associated with the use of ICTs.

Methodology

This study is based on survey method. The primary information about utilization of ICTs and the problems associated with the use of ICTs in teaching-learning system was collected through survey method using the structured questionnaire. Random sampling method was used in selecting the students from 3 study

centres located in Warangal District. The questionnaire was served to year-2 and year-3 students of Under-graduation and Post-graduation (see Appendix-I) as these students were already exposed to distance education system in their year-1 program of the study.   100 questionnaires were issued to students selected randomly from 3 study centres and collected them personally after they filled up the questionnaires. The analysis was made based on 100 filled in questionnaires. Further, the researchers have interviewed/discussed with 10 selected counselors from the study centres and with the concerned authorities at the SDLCE Head Office in Warangal in order to have a broader perspective in drawing inferences. However the limitation of the study is that sample size is small. The secondary data relating to number of programs, Study centres, enrolment particulars, technologies available, growth of students' strength and examination results etc., are collected from the available, records of the SDLCE. The information obtained through primary and secondary data was analyzed and interpreted by taking into account all factual figures and finally conclusions as well as suggestions are drawn.

Learners Profile

The learners profile covers variables of age, sex, marital status, employment and academic qualifications. The profile of the students studying in SDLCE is analyzed and explained by taking into account the course selected, reasons for choosing SDLCE mode of education, age group, gender and marital status and lastly qualifications obtained before joining to the program of study. The learners profile is presented in the table-1. The students opted commerce related programs account for 52 per cent, Arts 25 percent and Science only 22 percent. While 34% of students opted the distance education mode as they are employed, 37% of students opted this mode as they are married. It means the distance education mode is useful to the employees and married people compared to others. Out 100 sampled students, 39% of students are in the age group of 18 – 25, and 21% are in 26 – 30 and 18% are in the age group of 31 – 36 and the rest are in the above 36 age group. It means the large number of adults take the advantage of the distance education programs. The female learners represent 52% and the married learners 52%. It means the distance education system is more convenient to female learners and married people. Further the educational qualifications of learners before they join the distance education system show that 62% are with SSC and 28% with Intermediate and the rest are without any qualification. Thus reveals that the distance education system is very important to make literate, educate and train the human resource as it stands for a complementary role along with the formal education system.

Table-1: Profile of Learnes

Programme of the study	Science	Commerce	Arts	Total students
No. of students	22	53	25	100

2. Reasons to choose SDLCE	Employee	Un employee	Married	To improve qualification	Total
No. of students	34	19	37	10	100

3. Age group	18-25	26-30	31-35	36-40	41-45	46 above	Total
No. of Students	39	21	18	16	4	2	100

4. Gender	Male	Female	Total
No. of students	48	52	100

5. Marital Status	Single	Married	Total
No. of students	48	52	100

6. Qualification before joining SDLCE	No. qualification	SSC	Intermediate	Total
No. of Students	10	62	28	100

Students' enrollment and results

Presently the SDLCE has been offering 27 programs (Appendix-I) through its net work of 109 study centres covering in seven districts of Andhra Pradesh. The enrolment of students in all programs (UG, PG and Certificate Programs) put together is 43,638 during the year 2008-09 (Appendix-I). The interesting thing is that the admission in MBA program has been increasing from year to year. The current enrolment in MBA program during the year 2008-09 is 3566.

The pass percentage in most of the courses on an average is more than 50 percent (Appendix-I). The lowest pass percentage is observed in M.Sc., Zoology (47%). The highest pass percentage is observed in B.Com., (General) constituting 70%. It has been observed that the enrolment has been increasing from year to year in all courses and results are in rising trend on an average. This indicates the access and success of distance education system has been widening with the support of ICTs.

Effectiveness of multi-media instructional system

In an effort to find out the ICTs facilities provided to the learners and the responses of learners to ICT instructional delivery system, an attempt is made to analyze various types of ICTs that SDLCE is using for its instructional delivery system.

The SDLCE has adopted the following multi-mode educational instruction to widen access to its learners.
- Supply of printed course modules to the learners;
- Arrangement of contact-cum-counseling sessions at the study centres on Sundays;
- Broadcast of Radio lessons on All India Radio;
- Provision of Audio / Video programs for their replay at study centres;

The advent and advancements in Information and Communication Technologies (ICTs) have remarkably changed the teaching-learning system. The technological innovation in teaching and learning is now enabling Open Distance Education Institutions to improve the quality of education / learning (Sukati and Chandraiah, 2005).

The analysis pertaining to technology based education and learning was made to know the responses of learners, who are ultimate best judges and gainers, and presented in the Table-2. The findings emerged are as follows.

Out of 100 students 95 students opined that the ICT role is very helpful to reach out to the place of learners wherever they are. Only negligible percentage of learners (i.e. five students) expressed negative impression. The reason could be that the ICTs are not accessible to them.

Out of 100 students, 93 expressed that the use of ICT in transforming educational knowledge and to make understand the students is very effective.

Further, 96% of sampled students opined that, the technologies are helpful and play a lot in retention of subject matter effectively along with the course material and class-room work.

94% of sampled students responded for application of technologies by the distance learning institutions for knowledge and subject matter transmission. It is a source of strengthening the human resource receiving capability.

93% of sampled students highlighted the importance of application of various media technologies for the cause of human resource knowledge, accumulation, up-gradation of career and quality life as well as filling the strong foundation for democratic way of life and no wastage of resources. Further students suggested having TV lessons for improving their subject knowledge.

Table-2: Responses of the Learners on the use of ICTs

Sl.No.	Factor	Yes	No	Not known	Not necessary
1	ICTs role is complementary in the material delivery system	95	-	01	04
2	ICTs effectively useful for understanding the subject matter	93	-	04	07
3	ICTs enable to communicate, repetition and retention of subject matter.	96	-	04	-
4	Whether distance educational institutions should use ICTs in knowledge transmissions to distance learners.	94	-	-	06
5.	Would you think use of ICTs result into waste of money and resources	-	93	07	-

Source: Survey.

Radio Technology

Out of 100 respondents, 80 percent of students are listening radio lessons very frequently and often. 20 per cent of students are not availing the radio lesson facilities due to non- owning of equipment, not adjusting to the time schedule, no information of broadcast timings. Further, 20 per cent of students are availing the radio classes even though they do not own a Radio set, as this indicates personal interest in availing this facility. Regarding the quality of radio lessons, all the students who own the radio equipment stated that the lessons were useful. It means the Radio technology is suitable and accessible technology for learners especially those who are living in rural areas.

Audio Lessons

The University produces Audio lessons for its distance learners. Table-3 reveals that 47% of sampled students mentioned that they were able to listen to audio lessons and 53% were not. The main reasons for not listening audio lessons were: (i) majority of learners (62%) do not own the equipment. (ii) Some students mentioned that study centres do not have facility for listening audio lessons. Some students mentioned that though they do not own the equipment, they go to friends who own the equipment and avail the facility of audio lessons. Majority of students who availed the facility mentioned that the audio lessons are useful as they can be used according to learners place and time.

This technology will be highly useful especially for distance learners who are living in rural areas because of two reasons: (i) this technology is cost-effective (affordable) and easy to operate; (ii) the telecasting of TV Lessons was not clear in rural areas. Keeping the audio technology strengths in view, the audio programs can be well planned and extensively used.

Video Lessons

Video lessons are very important and effective way of transforming course subject knowledge to the learners. The SDLC provides video lessons/cassettes as a supplement to the printed course materials. The analysis of Table-3 shows that 54% of sampled students mentioned that they are availing the facility

of video lessons. Further they mentioned that these lessons were useful. 46% of sampled students mentioned that they do not own the equipment and the study centres do not have facility to listen video lessons and therefore they were unable to use the facility.

Table-3: Listening/Watching Radio, Audio, Video, TV Lessons by learners

Technology	Very Frequently	Frequently	Do not Listen	Total	Own Equipment	Do not own Equipment	Total
Radio	25	55	20	100	60	20	100
Audio	35	12	53	100	38	62	100
Video	17	37	46	100	36	64	100

Source: Survey.

Preference for Technology
As far as preference of technology is concerned, majority of learners gave first preference of Radio technology compare to video and audio technologies. Some learners opted more than one technology. It means they want to use combination of technologies. As such 80% of sampled students preferred Radio technology as a learning support among other technologies that SDLCE using. This is followed by Video technology (62%) and Audio technology (59%).

Table-4: Rating for technologies as learning support

Technology	Excellent	Very good	Good	Poor	Total	Do not listen/ watch	Preferred technologies
Radio	20	31	21	8	80	20	80%
Audio	15	15	12	5	100	53	59%
Video	12	21	12	9	100	46	62%

Source: Survey.

Suggestions
To improve the system in technology based teaching-learning environment, the following suggestions are made.

Potential of Open and Distance Learning
Many countries are struggling with limited access to education and training for children and young people. To widen the access to education, a range of technological devices is now widely available and relatively cheap (e.g. CD-ROM, various internet services), the Institution may expand and make them available with a net-work at all study centres, which facilitates access to learners and to improve their quality education.

Television
In UK, the UK Open University uses the television for 35 hours a week. In China's Central Radio and TV University, it is used for about 32 hours, and the Open University in Thailand and the Athabasca University, Canada, use it for about 12 hours a week. In Japan, Television is used on a large scale (Ram Reddy, 1990). It is ascertained that SDLCE is entering into an agreement with the Doordarshan to introduce TV lessons very soon as they would bring about significant changes in student style and behavior and variety to the learning experience. Further it is desirable to introduce teleconferencing programs which will facilitate students to directly interact with the subject expert on live.

Audio/Video Technology

According to learners information the Audio/Video play back facility is not available at study centres but CD will be provided at free of cost. There is a need to make this facility available at all study centres. This enables the distance learners, who are not accessible to technology, can make use of the facility and improve their quality learning.

Computer Technology
Although printed material is still the most popular medium of instruction, new technologies such as interactive television and computer (interactivity) would obviously play a key role in the open education system. In the present environment of fast growing information technology, many learners will use the Internet to interact with their teachers by e-mail. Self-Instructional material can be arranged on CD-ROM or at the World Wide Web (www) to increase the access to quality education.

Currently, the SDLCE is not using TV and Computer Technology for teaching and learning. But this ultimately ranks as available technology for teaching and learning. Most importantly the computer can be used to access the world-wide web, where both teachers and learners can interact each other. In order to widen access, the University has to make arrangements for Computer Lab Centres with a net work of all study centres. So that it will be convenient for poor students especially in rural areas to use the centres for their program of study as many students are neither accessible to computers nor affordable to buy computers.

Conclusion
This paper explored the problems and possibilities that should be taken into account in implementing the educational technologies at the SDLCE for widening the access to quality education and success of distance learners. The analysis of the responses of learners to ICTs, revealed that the impact of ICTs is exciting as well as a cause for concern. The SDLCE has not exploited fully all the technologies to make the education more accessible. Therefore, the University, in striving to 'excel' in its widening access to education through ICTs, should take the new challenges raised by new technologies and will have to revive and evolve to increase the access to education and success rate of distance learners.

Appendix-I

No. of Distance Students enrolled and pass results.

S.No	Course	Enrollment					Students pass% in each course				
		2004-05	05-06	06-07	07-08	08-09	2004-05	05-06	06-07	07-08	08-09
1	CLISC	672	706	760	802	842	54%	54%	56%	57%	57%
2	CICS	843	902	1040	1142	1176	55%	56%	58%	56%	58%
3	Diploma in Mimicry	322	362	402	473	486	60%	61%	62%	63%	63%
4	B.A. General	3250	3750	4042	4150	4230	55%	55%	58%	59%	60%
5	B.Com., Gen.	3120	3632	3802	4042	4300	68%	68%	69%	69%	70%
6	B.Com. Comp.	722	876	982	1051	1172	65%	66%	68%	68%	69%
7	BHRM	672	706	789	864	876	55%	56%	57%	55%	56%
8	BLISC	525	601	679	752	782	56%	56%	57%	57%	57%
9	BCJ	526	581	617	756	767	60%	61%	62%	66%	68%
10	PGDCA	872	907	1009	1121	1236	62%	62%	64%	65%	64%
11	PGB Mgt.	672	705	832	876	896	63%	57%	64%	65%	64%
12	M.A. English	1702	1907	2203	2322	2460	62%	66%	67%	65%	68%
13	HRM	702	842	1021	1084	1166	55%	58%	59%	60%	62%
14	M.Com.	925	1052	1125	1176	1196	64%	66%	64%	68%	67%

15	M.A. Maths	620	786	926	1056	1162	58%	57%	56%	59%	60%
16	M.Sc., Maths	574	678	726	778	897	52%	53%	54%	50%	49%
17	M.Sc., Environment	842	836	876	898	977	53%	56%	54%	49%	50%
18	M.Sc., Psycho	1173	1266	1365	1422	1560	51%	49%	48%	52%	50%
19	LLM	472	482	536	628	669	48%	48%	50%	52%	52%
20	MCJ	462	572	607	282	306	49%	52%	54%	56%	56%
21	MBA Executive	3203	3360	3450	3486	3566	65%	66%	68%	69%	69%
22	MSC Botony	762	807	1007	1010	1176	48%	49%	52%	52%	55%
23	M.Sc., 2001	842	907	1005	1166	1235	47%	48%	46%	54%	55%
24	M.Sc., Physics	433	482	682	756	789	49%	52%	52%	57%	55%
25	M.Sc., Chemistry	2200	2250	2625	2726	3150	50%	51%	51%	51%	52%
26	B.Ed., distance mode	3500	3802	4042	4132	4200	58%	59%	60%	61%	62%
27	B.Ed., Addl.methodology	1805	2282	2850	2976	2361					
	Total	32941	36045	40010	41932	43638					

Source: Records of SDLCE, Kakatiya University, Warangal.

CLISC = Certificate Course in Library Science. CICS = Certificate Course in Communication Skills.

References

COL (2000), 'Introduction to Open and Distance Learning', www.col.org/ODL *Intro/IntroODLhtm,* 2000.p.4.

Ram Reddy, G. (1990), *Readings in Distance Education-I* (Founder and First Vice-Chancellor of Dr.B.R.Ambedkar Open University and IGNOU), edited by M.L. Koul, Indira Gandhi National Open University, New Delhi.

Sukati, CWS and Chandraiah, E (2005), 'Use of Information and Communication Technologies (ICTs) in Distance Education-A Comparative Study'*, International Journal of Open and Distance Learning,* Volume - 2, Zimbabwe Open University, Zimbabwe.